# **Z-526**AFS Akrobat

## <u>eduard</u>

## 1/48 Scale Plastic Model Kit



## WEEKEND edition

The small and simple sport plane, which was designed three quarters of a century ago, is still popular today and also a first class legend for many. The Z-26 line of aircraft is really multitalent, as it won numerous aerobatic trophies, trained thousands of pilots, and towed countless gliders to the sky.

It was shortly after the Second World War when the Ministry of National Defense of then Czechoslovakia made a request in 1946 for the development of aircraft for the training of future military pilots. It was to be a type allowing comprehensive pilot training, including aerobatics and with a tandem cockpit arrangement.

The design work was undertaken by a team led by the director of the Zlín Aviation Company Karel Tomáš with further development subsequently taken over by Svatopluk Zámečník and Jiří Navrátil. The new trainer was of mixed construction with a welded tube frame fuselage covered in the middle and rear part with canvas. The wing was all-wood, with canvas cover from the spar to the trailing edge. The tail surfaces were also of wooden/canvas design The landing flaps were electromechanically operated, the brakes were hydraulically operated. A Walter Minor 4-III four-cylinder engine with a maximum output of 77 kW (105 hp) was selected and mated with the wooden propeller of the V-26.

#### First changes

Factory pilot Ladislav Šváb flew the first prototype on October 20, 1947, and after design of Mr. Tomáš was preferred over the competing Praga E-112, serial production began in 1949 with the military designation C-5 and the civilian designation Z-26. Within two years, 163 of these aircraft were built, primarily for military training. However, trainers were also supplied to aero clubs, and export machines went to Poland or Romania.

Problems with the wooden wing led to its redesign to an all-metal structure and so were tail surfaces. The hydraulic brakes were replaced by simpler mechanical brakes. Some Z-26 and Z-126 aircraft received an electric starter, but these were later removed to save weight and replaced by a manual starter. In both cases they were flown solo from the front seat.

#### The six-cylinder emerges

Thanks to the Trenér, aerobatic training became a common thing in the Czechoslovakia, and it was also shown that this type could be suitable for towing gliders. However, the four-cylinder Minor lacked power, so a six-cylinder Minor 6-III with 118 kW (160 hp) was installed, coupled with a specially designed towing propeller. The longer engine necessitated moving the oil tank from the engine bulkhead to the root of the left wing half, and some weight was saved by removing the instruments and controls in the forward cockpit, where only the seat remained. The electric control of the flaps was also removed and replaced with a mechanical one – a lever on the right side of the rear cockpit. All this created the "workhorse" of the aero clubs of the time, the Z-226B Bohatýr (Hero) tug.

#### Aerobatics achievements

Due to the excellent experience with the Z-226B version, it was decided to build a trainer version, the Z-226T based on the six-cylinder design. In 1956, Jiří Bláha placed second in the unofficial aerobatic world championship, the Lockheed Trophy competition in Coventry, England, with his prototype. Top places for Czechoslovak aerobatic pilots flying Z-226T were quite usual at the time. Even the first official aerobatic world championship in Bratislava in 1960 was a proof of that with Ladislav Bezák becoming first official World Champion.

#### This kit: Z-526AFS Akrobat

The history of aerobatic specials of the Z-26 series began on April 16, 1966 with the maiden flight of its first single seater Z-526A (A standing for Akrobat). However, the requirements of aerobatic pilots were higher, so two years later the Z-526AS (Akrobat Special) version was prepared for the World Championships in Germany. The aircraft met the requirements of FAR Part 23 for the Special aerobatic category with a +7/-4.5 g-force load compared to the previous +6/-3 g-force. The flaps were deleted, and the cabin received a new better shaped canopy. The Walter Minor 6-III developing 118 kW (160 hp) was retained. In 1969, the M-337 engine was modified to a fully aerobatic version, the M-137A offering 130 kW (180 hp) of power. It did not take long it was used for aerobatic version as well as for the Z-526 two seaters. All five Z-526AS produced were converted to the Z-526AF version by installing the M-137A into redesigned fuselage (shortened by 18 cm). In an effort to save weight, hydraulic landing gear with a hand pump was installed so the aircraft could fly without a battery and generator. Engine had to be started either by an external power source or manually.

As a brand new type of aerobatic aircraft (which came in 1975 as Z-50L) was still in sight and another aerobatic world championship was being held in 1972, the Z-526AF was further redesigned. On September 25, 1970, the OK-YRA aircraft, converted from the AF version to the AFS, took off. The wingspan was shortened, earning this version its nickname "Kraťas" (translates "Shorty").

The wing received twin ailerons which together with new aerodynamic wing-to-fuselage joint provided further improvements in flight characteristics. Apart of five examples rebuilt from the Z-526AF, the new Z-526AFS examples received the electrically operated landing gear again. All the modifications resulted in a 35% increase in longitudinal axis maneuverability. And athough the Z-526AFS was no match for the top aerobatic specials, it became popular with pilots and 45 were manufactured. A number of successful pilots, such as Petr Jirmus, started their aerobatic career flying Z-526AFS. It also marked the peak of the Box Trenér group in 1982 with pilots Jiří Tlustý, Božej Struž, Antonín Klimenda and Laco Trebatický.

Carefully read instruction sheet before assembling. When you use glue or paint, do not use near open flame and use in well ventilated room. Keep out of reach of small children. Children must not be allowed to suck any part, or pull vinyl bag over the head.



Před započetím stavby si pečlivě prostudujte stavební návod. Při používání barev a lepidel pracujte v dobre větrané místnosti. Lepidla ani barvy nepoužívejte v blízkosti otevřeného ohně. Model není určen malým dětem, mohlo by dojit k požití drobných dílů.

#### INSTRUCTION SIGNS \* INSTR. SYMBOLY \* INSTRUKTION SINNBILDEN \* SYMBOLES \* 記号の説明

? OPTIONAL VOLBA

BEND OHNOUT SAND

**BROUSIT** 

OPEN HOLL

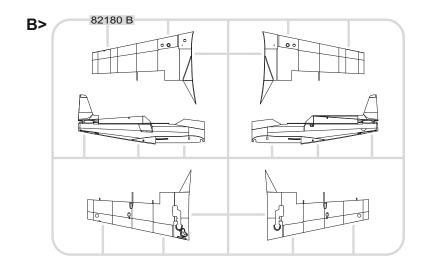
OPEN HOLE VYVRTAT OTVOR SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ

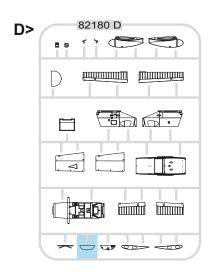
REMOVE ODŘÍZNOUT REVERSE SIDE OTOČIT

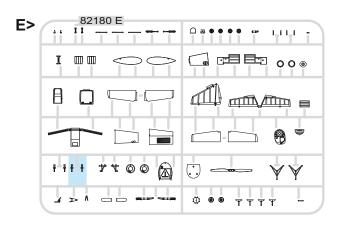
APPLY EDUARD MASK AND PAINT POUŽÍT EDUARD MASK NABARVIT

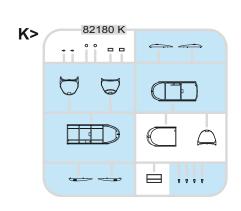
PARTS \* DÍLY \* TEILE \* PIÈCES \* 部品

#### PLASTIC PARTS







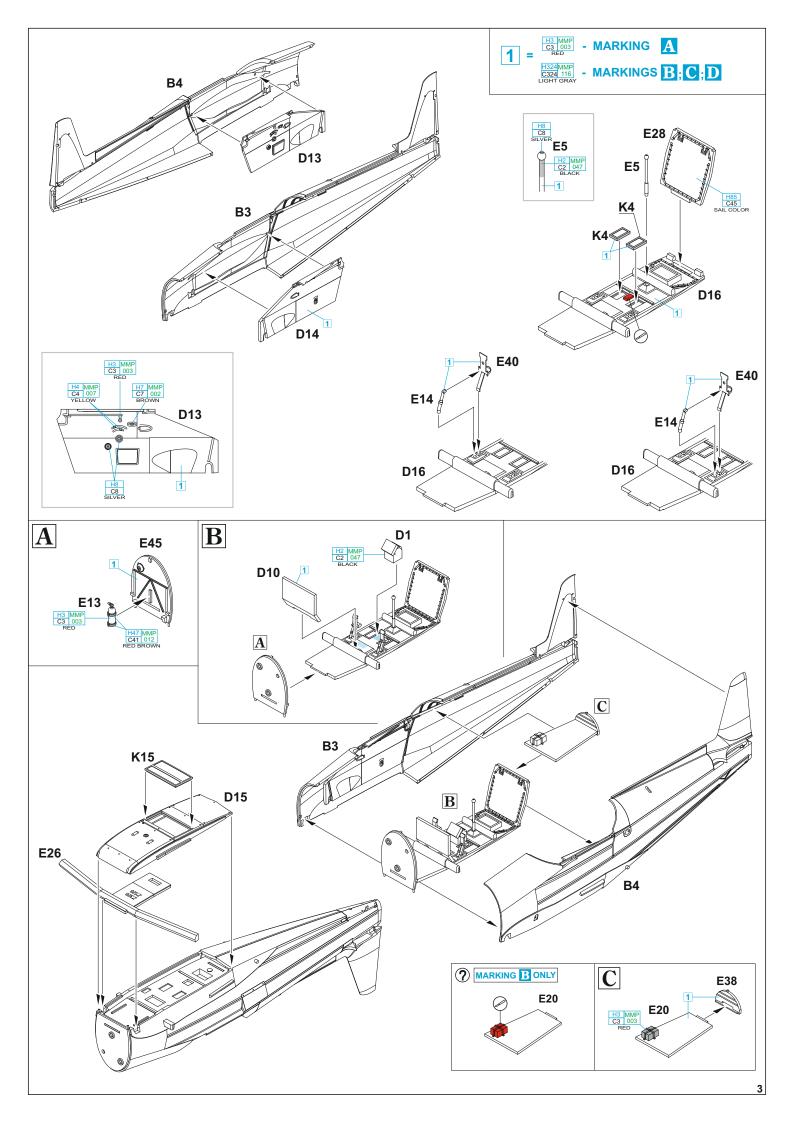


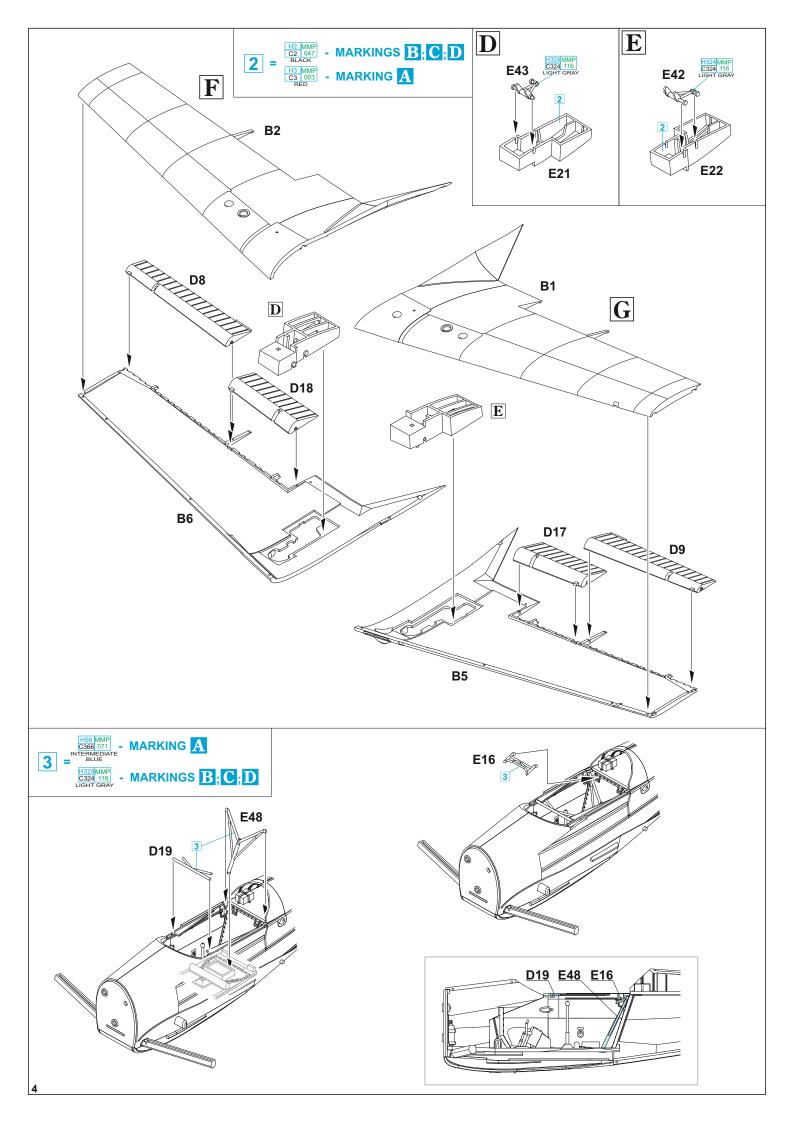
-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto díly nepoužívejte při stavbě. - 使用しない部品

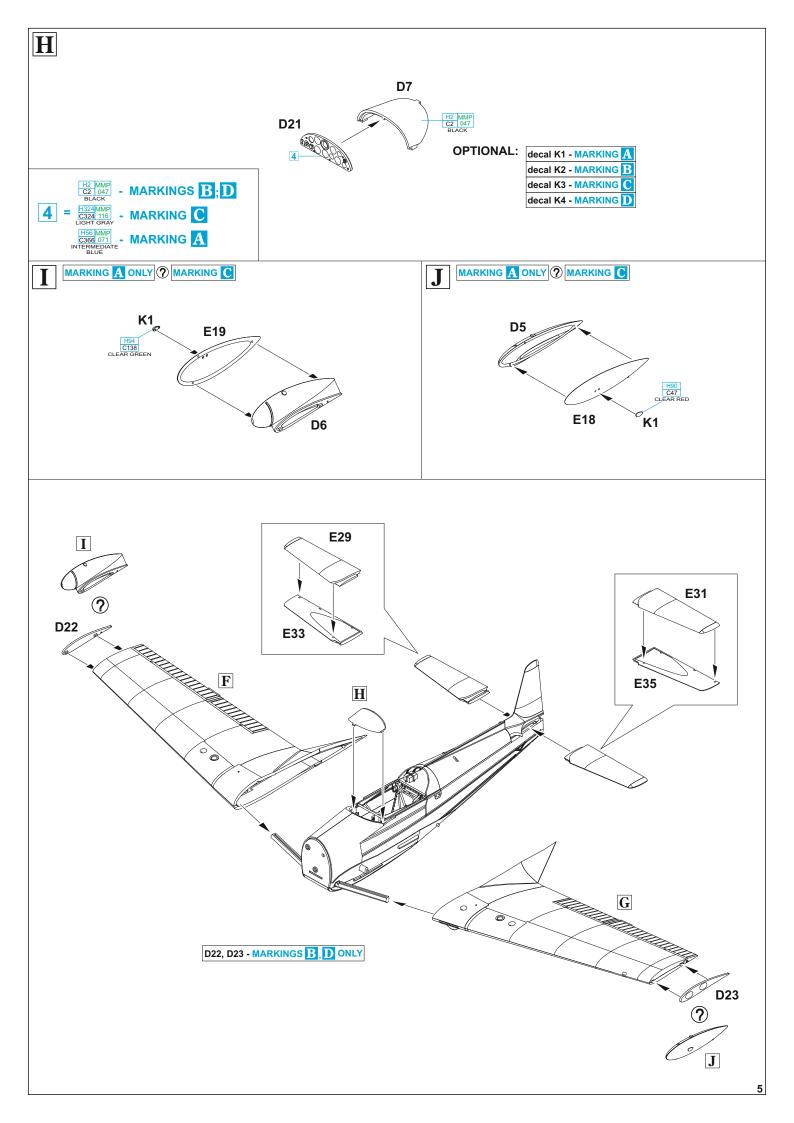
COLOURS \* BARVY \* FARBEN \* PEINTURE \* 色

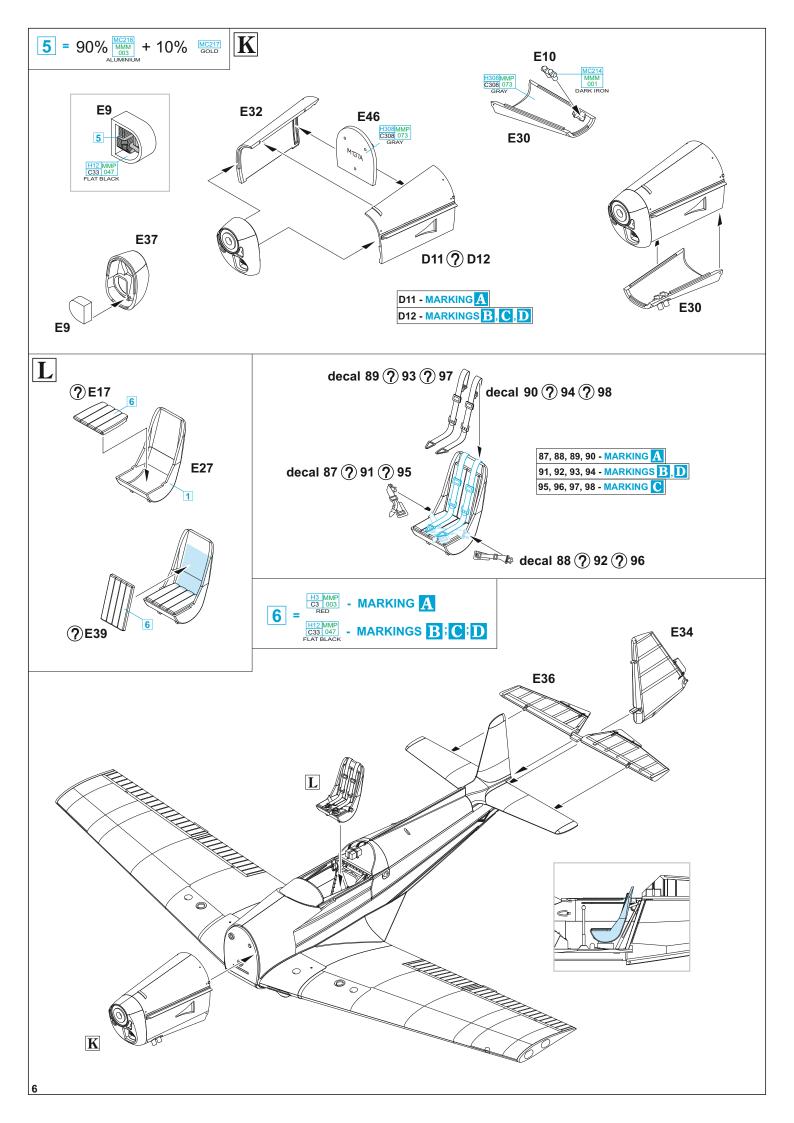
GSi Creos	(GUNZE)	MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H2	C2	MMP-047	BLACK
H3	C3	MMP-003	RED
H4	C4	MMP-007	YELLOW
H7	C7	MMP-002	BROWN
H8	C8		SILVER
H11	C62	MMP-001	FLAT WHITE
H12	C33	MMP-047	FLAT BLACK
H14	C59	MMP-005	ORANGE
H47	C41	MMP-012	RED BROWN
H56	C366	MMP-071	INTERMEDIATE BLUE
H77	C137	MMP-040	TIRE BLACK
H85	C45		SAIL COLOR
H90	C47		CLEAR RED

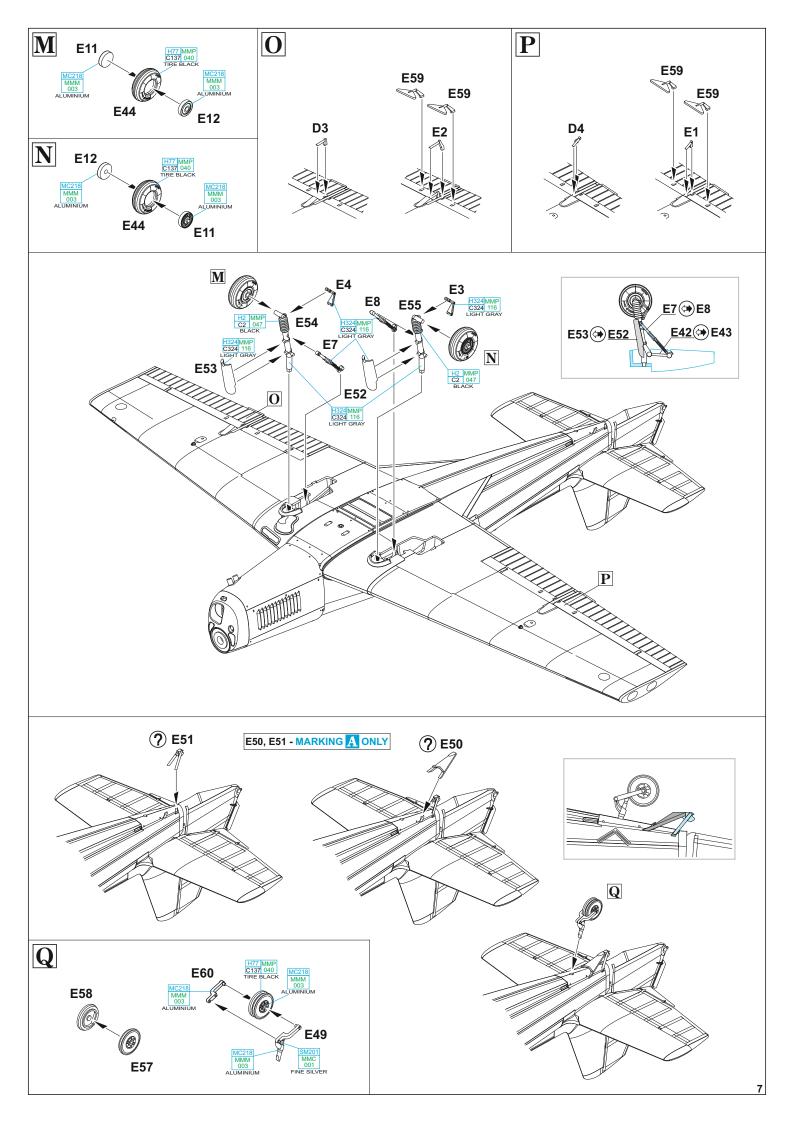
	MISSION MODELS	(GUNZE)	GSi Creos
	PAINTS	Mr.COLOR	AQUEOUS
CLEAR GREEN		C138	H94
GRAY	MMP-073	C308	H308
LIGHT GRAY	MMP-116	C324	H324
BLUE		C328	H328
YELLOW	MMP-041	C329	H329
DARK SEAGRAY		C25	
	METALLICS	LCOLOR	Mr.META
DARK IRON	MMM-001	214	MC
GOLD		217	MC
ALUMINIUM	MMM-003	218	MC
	METALLICS	PER METALLIC	Mr.COLOR SUI
SUPER FINE SILVER 2	MMC-001	201	SM
SUPER GOLD		202	SM

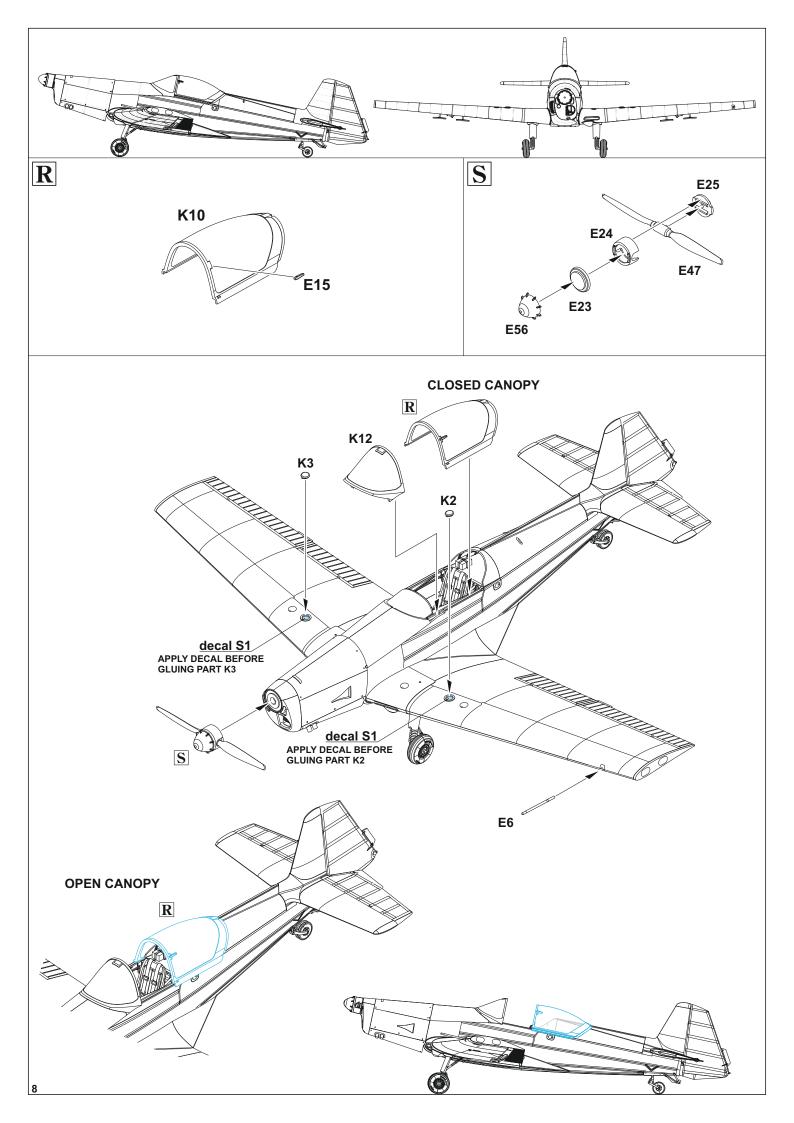






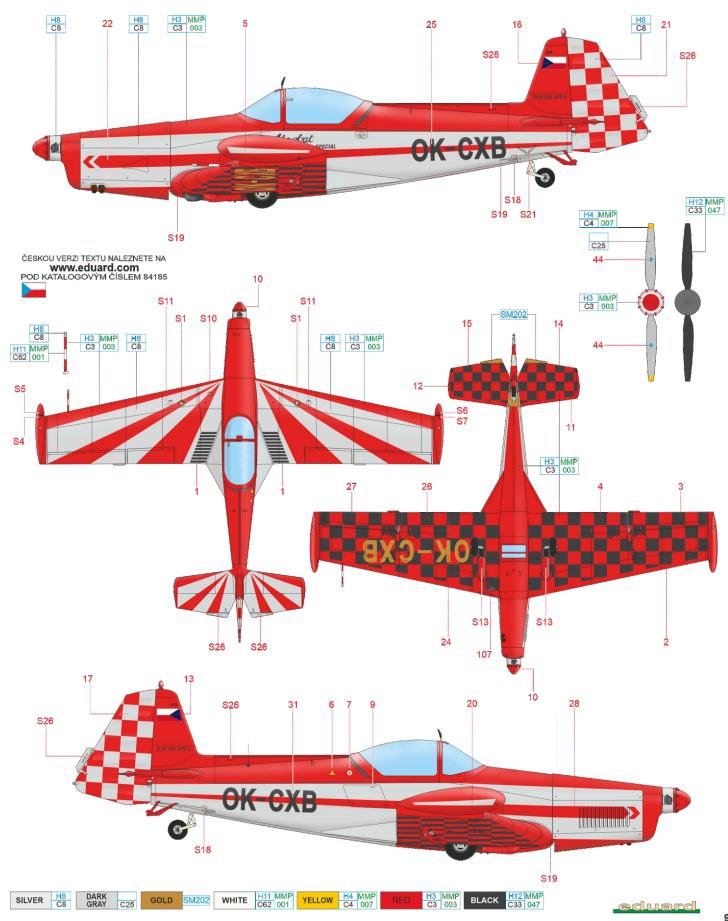






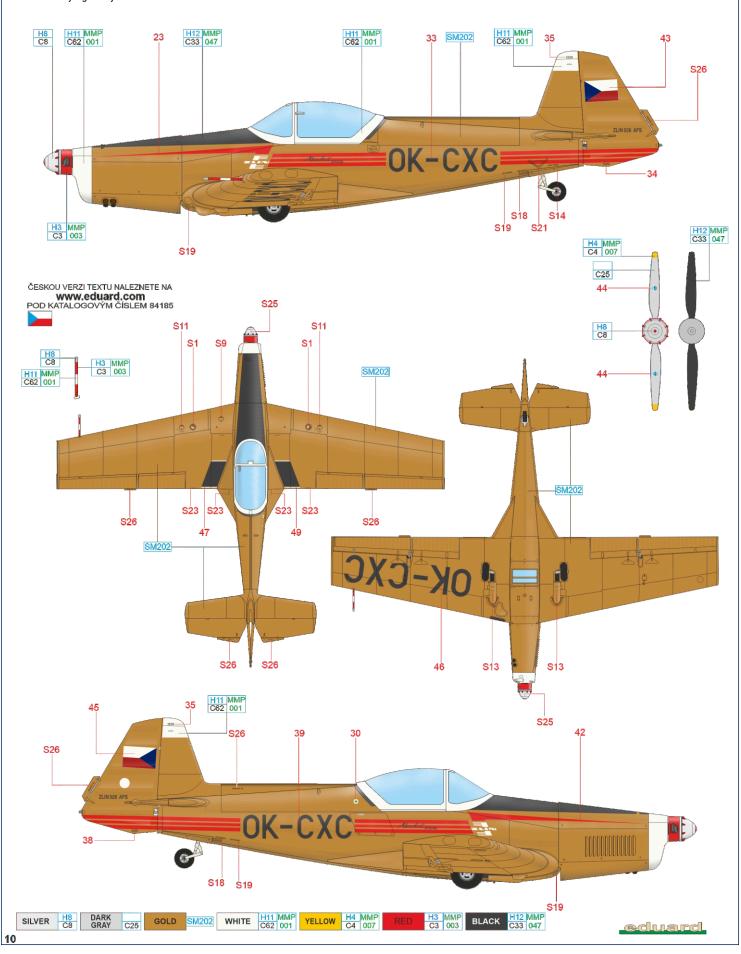
### 🛕 Z-526AFS-V, No. 1219, OK-CXB, Tábor, Czech Republic, 2022

Zlin Z-526AFS OK-CXB serial number 1219 was manufactured in 1972 and assigned to the national aerobatic team. It was painted in a golden-brown color, the same as OK-CXC. In the end of 1970s, the airplane was repainted in the typical red-white livery. It was kept as an aircraft of the national team until the second half of 1980s when it run out of the aerobatic life limit and the aircraft was rebuilt to a glider-towing version Z-526AFS-V. After Czechoslovakia split in 1993 it was assigned to the Aeroclub Holešov. In 2008, it underwent the general overhaul after which it was repainted in red-silver livery and has been flying in this coloring until now. Around 2009 the airplane was acquired by a private owner and was based at the Frýdlant nad Ostravicí aifield. It was several times loaned by Aeroclub Krnov and frequently flew as towing aircraft in sailplane competitions. In 2019 it was bought by Tomáš "Stanislavovič" Jirmus who operates it at the Tabor airport nowadays.



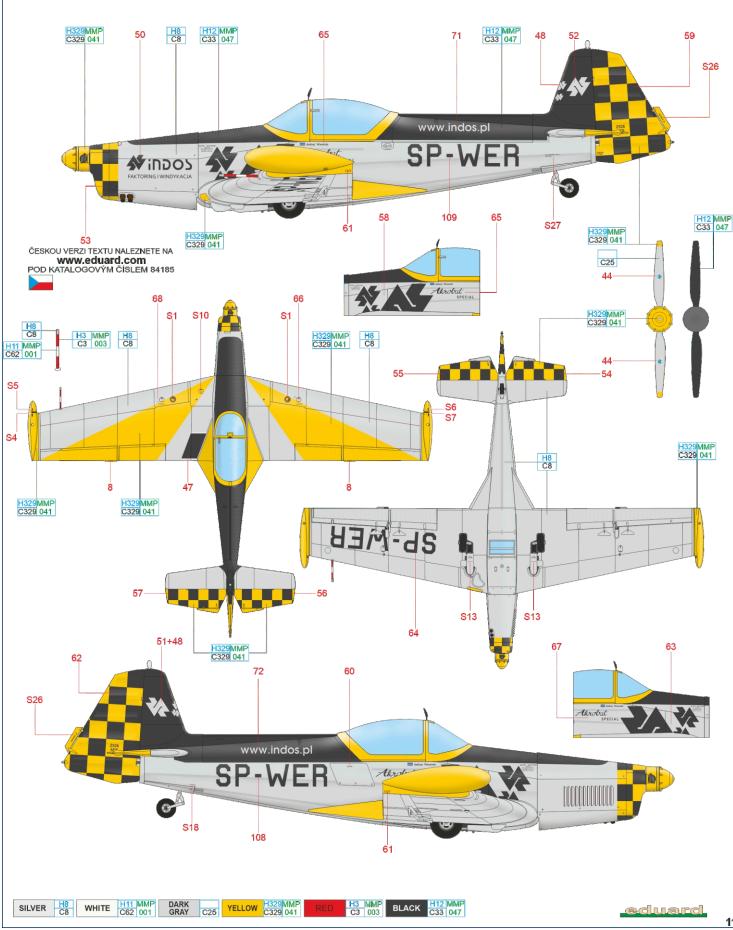
## Z-526AFS, No. 1220, OK-CXC, Svazarm, Czechoslovakia, 1972–1975

Zlin Z-526AFS OK-CXC serial number 1220 was manufactured in 1972 and assigned to Václav Šmíd, member of the national aerobatic team based at Kladno airfield. It received the golden-brown livery and since the paint work was not very well executed the aircraft was nicknamed a "brownie". It flew in this paintwork until 1975 when Václav Šmíd had to stop flying aerobatics. In the end of 1970s, the aircraft was repainted in blue-white livery which became typical for "Shorty" (Z-526AFS nickname in translation). In the end of 1980, the aerobatic life of the aircraft was at its end, so the aircraft was rebuilt into AFS-V tow version and kept on flying as a glider-towing airplane. After the split of Czechoslovakia, the plane was assigned to the Aero Club Olomouc where it is flying today.



### C Z-526AFS, No. 1327, SP-WER, Katowice, Poland, 2010–2018

Zlin Z-526AFS SP-WER serial number 1327 was manufactured in 1974 and exported to Poland where it flew with the registration SP-ELB for a national aerobatic team. Later it was flown by Aero Club Katowice and around 2010 it underwent the general overhaul with the associated re-registration to SP-WER. The aircraft was painted in yellow-black-silver livery and kept on flying in this scheme in Katowice until 2018 when it was bought by a Czech private owner. Another general overhaul was performed after which this "Shorty" was repainted in yellow-black-silver combination again. In this livery, registered as OK-ERB, it still flies today and still has its quota of aerobatic flight hours. Its home base is the Skuteč airfield.



## Z-526AFS, No. 1301, D-EWBA, Rumbach, Germany, 2009–2016

Zlin Z-526AFS serial 1301 was manufactured specifically for the Polish aerobatic national team carrying SP-ENA registration. It flew intensely for the first ten years, but a bit less afterwards. Then it flew in the Aero Club Nowy Targ until the end of 1990s. Around 2000 it was repainted and carried a LOT advertisement. In 2009 it was sold into private hands in Germany and was re-registered as D-EWBA. The owner, Mr. Adacci, had the smoke generator installed on the aircraft and flew with it in the airshows. In 2016 it was bought by David Sýkora and transferred from Rumbach airport to Panenský Týnec where this "Shorty" flew for another five years and during this time received a new paintwork in metallic-red wine color. Shortly after it was acquired by another private owner and now flies out of the Hodkovice airfield. It still has a quota of the aerobatic flight hours.

